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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,466	02/25/2002	Tetsuya Okumura	57090 (70904)	4306
21874	7590	02/27/2007	EXAMINER	
EDWARDS & ANGELL, LLP			PSITOS, ARISTOTELIS M	
P.O. BOX 55874			ART UNIT	PAPER NUMBER
BOSTON, MA 02205			2627	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	02/27/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/082,466	OKUMURA ET AL.	
	Examiner	Art Unit	
	Aristotelis M. Psitos	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 December 2006.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/12/06 has been entered.

Specification

The amended title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Response to Arguments

Applicant's arguments filed 12/12/06 have been fully considered but they are not persuasive. The examiner has noted the amendment to the title of 2/16/05; however, because the short and long control marks have a direct impact upon the claimed and disclosed invention, identification of such is considered necessary in the title. The examiner recommends the following title:

--- Optical Reproducing System Using Short and Long Control Marks -----.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the newly inserted limitations with respect to the power mark throughout the data recording area of a sector must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

Art Unit: 2627

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

Applicant's arguments filed 12/12/06 have been fully considered but they are not persuasive.

The examiner cannot reconcile the phrase " --- throughout the recording data area ---", and the argued figured. Further depiction of the "throughout" feature is respectfully required.

Specification

The disclosure is objected to because of the following informalities:

The examiner cannot find clear support for the phrase " ---- throughout the data recording area ---", as recited in the claims..

Appropriate correction is required. Applicants' are cautioned against the entry of any new matter.

Claim Objections

Claims 13-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The parent claim of these dependent claims limits itself to the measuring of the short (2T pulse). However, these claims further required a long pulse, and hence no longer limit the parent claim. This is considered an improper broadening of the scope of the parent claim. Appropriate correction is required.

Response to Arguments

Applicant's arguments filed 12/12/06 have been fully considered but they are not persuasive. The dependent claims attempt to broaden the scope of the independent claims by introducing a limitation predicated upon the "long" reproducing control marks. These long reproducing control marks are NOT included in the independent claim. Stated another way, since the wherein clause limits the functioning of the measurement means to measure the characteristic corresponding ONLY to the plurality of short reproducing power control marks, no long mark is measured.

Again, both independent claims merely recite (in the ultimate wherein clause thereof) ONLY (emphasis examiner) the short control marks. This is in keeping with the disclosed invention as stated in paragraphs 36 of the USPGPUB equivalent document 2002/0145956.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure, which is not enabling. The independent claims limit the power control means to be responsive to the measured short and long power control marks. However, the ultimate wherein clause limits the measurement means of the claim to measure only (emphasis examiner) the short power control marks. No disclosure is found to so limit the invention.

Since all dependent claims fail to clarify this appropriately, they fall with their respective independent claim.

Response to Arguments

Applicant's arguments filed 12/12/06 have been fully considered but they are not persuasive.

The examiner notes that the independent claim clearly recites in the wherein clause that the length mark measurement means is ..."measure the reproduction signal characteristic corresponding

Art Unit: 2627

ONLY (emphasis examiner) to the plurality of short reproducing power control marks ... ". Hence the above does not rely upon the long control marks.

This is contrary to the disclosure as found starting in paragraph 6.1 or the equivalent PGPUB 2002/0145956 document. Hence the examiner cannot reconcile the claimed subject matter with the disclosed subject matter. Alternatively, this can be interpreted as a 35 USC 112 paragraph two problem, i.e., failing to particularly point out and distinctly claim the invention in that it lacks the long control marks in order to control the power of the system.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In particular, both independent claims recite:

" ... and of a long reproducing power control mark from information data that is recorded throughout a data recording area ... ".

Although the examiner interprets such to mean that both the short and long control marks are recorded in the data recording area, the term "throughout" is not clear. Is this to distinguish over predetermined domains/areas?

Nevertheless, this appears to read upon the disclosed prior art – i.e., see the description in paragraph 22 of the corresponding PGPUB document 2002/0145956. Again, further identification of this PRIOR art is respectfully requested IN ORDER TO COMPLETE THE SEARCH REPORT.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

Art Unit: 2627

from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 13/7/1; 14/8/2; 15/9/3/1; 16/10/4/2; 17/11/5/3/1; 18/12/6/4/2; and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,4,7 of U.S. Patent No. 6288992. Although the conflicting claims are not identical, they are not patentably distinct from each other because

The present claims differ by language as noted below:

a) The exclusion of the claimed reproduction signal production section.

The above claims at hand are met by the limitations of claims 4/7 (but use alternative language).

The limitations of claims 13,14,15,16,17 and 18 19 and 20 are met by the claimed mean value limitation of claim 4 in 6288992.

Response to Arguments

Applicant's arguments filed 12/12/07 have been fully considered but they are not persuasive.

Applicants' argue that the ability of having the mark control pulse(s), both long and short Recorded throughout a data recording area is not found in the above reference. Such a limitation is present with respect to the description of the acknowledged prior art – see either figure 30 and its description in the above noted Okamura et al reference, or alternatively the description of the third embodiment starting at col. 31 line 35. Furthermore, this agrees with the admitted prior art as described in paragraph 22 of the equivalent PGPUB document 2002/0145956.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

In the below analysis the limitations of the following claims are identical:

- a) claims 3 and 4; identification of the short control mark as the 2T mark, pattern of mT, 2T,2T, nT
- b) claims 5 and 6: identification of m=n=2
- c) claims 7-12: controlling means based on the measured reproduced signal characteristic
- d) claims 13-18: ratio of long and short control marks.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art further considered with Tanaka et al and all further considered with Okumura et al ('992).

Art Unit: 2627

Applicants' depiction of the acknowledged prior art hardware (figure 5) is greatly appreciated. Further positive identification of such, if readily available is respectfully requested to complete the search report. In any event, this prior art depicts a laser power control system, which relies upon a ration of long and short pulse comparisons in order to maintain the laser power. This acknowledged prior art hence discloses the limitations of the claims, with the exception of requiring/limiting the measuring of the short reproducing control mark, identified as 2T, and a pattern of 5 of these pulses.

The ability of measuring the reproduced control mark to that of the 2T mark is taught by the Tanaka et al system – see the discussion with respect to figure 10, starting at col. 9 lines 15 plus.

It would have been obvious to modify the base system of the acknowledged prior art and modify it with the above noted teaching from Tanaka et al, motivation is to compensate for the thermal-shift pattern. Motivation is to so compensate.

With respect to the newly introduced limitation of having the short and long power control marks throughout a data recording area of a sector, such is taught by the third embodiment of the Okumura et al reference.

It would have been obvious to modify the base systems as stated above with this additional teaching, motivation is as discussed in Okumura et al.

With respect to the limitations of the above group a & b claims, the figure depicts a pattern of 2T pulses, at least 5 and hence meets these claims.

With respect to the limitations of the above group c & d claims, these are found in the acknowledged prior art – description of the power control accordingly as well as the ratio between a long and short pulse.

Hence no further modification of the acknowledged prior art is necessary.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are not persuasive.

The acknowledged prior art is relied upon for the reasons stated above.

The reference to Tanaka is pertinent in this environment – see the entire disclosure, which refers to the impact by various pulses (pulse lengths) and power levels (jitter effects), and the noted effect upon

Art Unit: 2627

short pulse lengths such as 2T. Hence the examiner concludes such is indeed pertinent to the problem at hand – i.e., power level control.

With respect to the arguments against the Okumura et al reference, the examiner maintains his position. Again, either the third embodiment or the acknowledge prior art (figure 30) thereof, describes the ability of having the control pulses (short/long) detected from the reproduced signal – which must come from the data recording area and since it is not limited to ONE specific segment/area/domain, the examiner interprets such as meeting the term " --- throughout ---".

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References cited as illustrative of power control/aux. Signals in the recording arts, either optic or magnetic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-F: 6:00 - 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos
Primary Examiner

